Friction Factors, continuation

Method A: Recreating a new graph to use with the known parameters.

Example:

Re \* sqrt(f) = ⍴<vz>D/μ \* sqrt(ΔPD/2L⍴<vz>2) = ⍴D/μ \* sqrt(ΔPD/2L⍴)

Liquid = water (know P and ⍴), given D,L

Develop new chart for Re\*sqrt(f) vs. Re from our original Moody Chart

Know Re\*sqrt(f) from chart, calculate Re (⍴<vz>D/μ) to find <vz>

Method B: Develop a new equation for relationship between Re and f

F = (Re\*sqrt(f))2/Re2

log(f) = -2 log(Re) + 2 log(Re\*sqrt(f))